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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/570,486	03/03/2006	Hilmar Gugel	016790-0507	9939
22428	7590	11/09/2007		
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER KIANNI, KAVEH C	
			ART UNIT 2883	PAPER NUMBER
			MAIL DATE 11/09/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/570,486	Applicant(s) GUGEL, HILMAR	
	Examiner Kianni C. Kaveh	Art Unit 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 2-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 16-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.



Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's election without traverse of claims 1 and 16-21 in a paper submitted on 8/31/07 is acknowledged. The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 16, 20 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is ambiguous, since 'characterized in that' is undefined as whether it is referring to the light source or that of the microstructure or something else? Correction is required.

Claim 16 is indefinite since there is no link between the first step, spectrally spread light, and the subsequent steps of 'selecting at list one illuminating light wavelength) that makes the claim ambiguous. Correction is required.

Claim 20 is a 'use claim' that does not specify any step(s) in using the method of claim 16 in STED microscopy thus making the claim indefinite.

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Claim 21 is a 'use claim' that does not specify any step(s) in using the method of claim 16 for carrying out pump-probe experiment thus making the claim indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ranka et al. (US 6097870).

Claim 1 rejected under 35 U.S.C. 103(a) as being unpatentable over Ranka et al. (US 6097870).

Ranka teaches a light source (see fig. 8) comprising a microstructured optical element 86 that receives and spectrally spreads the light from a primary light source 82, characterized in that the spectrally spread light traverses at least one further microstructured optical element 89 (see at least col. 6, 1st parag.; note that MSF are microstructure fiber(s)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Ranka et al. and Birk et al. (US 20020009260) .

Regarding claims 16-21, as stated above, Ranka teaches all limitations that he claims depend on. Ranka further teaches generating spectrally spread light with the aid of a light source (shown in fig. 8). However, Ranka does not specifically teach all other method steps of illumination. Birk teaches a light source with microstructured optical element(s) including a method for generating illuminating light, characterized by the following steps: generating spectrally spread light with the aid of a light source (shown in at least fig. 1-4), selecting at least one illuminating light wavelength and/or at least one illuminating light wavelength region, and splitting off the illuminating light of the at least one illuminating light wavelength and/or of the at least one illuminating light wavelength region from the spectrally spread light (shown in figures 3 or 4 or 5 and/or 7); characterized in that the illuminating light optically excites a sample (this limitation is conventional as the examiner takes official notice as taught such as by the prior art such as DE10056382 or DE 4416558 admitted/provide by the applicant as to stimulate

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the sample); characterized by the further step of: selecting at least one further illuminating light wavelength and/or at least one further illuminating light wavelength region, and splitting off further illuminating light of the at least one further illuminating light wavelength and/or of the at least one further illuminating light wavelength region from the spectrally spread light (shown in at least fig. 7); characterized in that the further illuminating light effects a stimulated emission (this limitation is conventional as the examiner takes official notice as taught such as by the prior art such as DE10056382 or DE 4416558 admitted/provide by the applicant as to stimulate the sample); in STED microscopy and carrying out pump-probe experiments (see fig. 7). Thus Birk provides at least one wavelength conversion channel (parag. 0004). Thus, it would have been obvious to a person of ordinary skill in the art when the invention was made to combine the teachings of Birk and that of Ranka whom is suggested by reference in Birk's disclosure (see parag. 0004) in order to produce a light source that includes the above method steps since such source would provide broadband continuum generation (see col. 2, 3rd parag.).

Citation of Relevant Prior Art

Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In accordance with MPEP 707.05 the following references are pertinent in rejection of this application since they provide substantially the same information disclosure as this patent does. These references are:

(US-20020009260 or US-20050122580 or US-20050111816 or US-20020050564 or US-20020043622 or US-20020028044 or US-20020018293 or US-20020006264 or US-20070035822 or US-20050069269 or US-20040254474 or US-20050249457) or (US-6888674 or US-6611643 or US-

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7123408 or US-7110645 or US-6898367 or US-6654166 or US-6710918 or US-6796699 or US-6993228 or US-6545791 or US-6097870)

These references are cited herein to show the relevance of the apparatus/methods taught within these references as prior art.

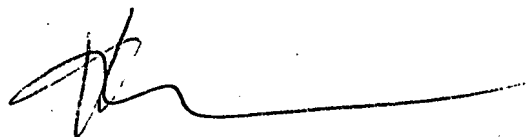
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kianni C. Kaveh whose telephone number is 571-272-2417. The examiner can normally be reached on 9:30-19:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K. Cyrus Kianni
Primary Patent Examiner
Group Art Unit 2883



K. CYRUS KIANNI
PRIMARY PATENT EXAMINER

November 7, 2007
